

Notice of Allowability

Application No.

09/539,637

Applicant(s)

LAM ET AL.

Examiner

Kimbhinh T. Nguyen

Art Unit

2671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 08/03/05.
2. ☒ The allowed claim(s) is/are 1-21 and 23.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Dwight Thompson on 10/11/2005.

The application has been amended as follows:

Claim 14. (Currently Amended): An overlay display processor comprising:

Claim 18, (Currently Amended): An overlay display system
comprising:

a video memory to store video data;

2. This action is responsive to amendment filed 08/03/05.
3. Claims 1-21 and 23 are pending in the application.

Allowable Subject Matter

4. The following is an examiner's statement of reasons for allowance:

Claims 1, 2, 10, 14, 23, the prior art does not teach utilizing a video memory bandwidth twice for each full line of video overlay data stored in the line buffer, wherein the utilizing the video memory bandwidth twice comprises: setting an indicator in a line

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buffer, the line buffer to store up to the full line of video overlay data for the overlay window; reading pixel data line buffer; for a current video line from the determining when the pixel data reaches the indicator; loading pixel data for a first half of the next video line into the line buffer based on the determining when the pixel data for the current video line reaches the indicator, wherein the indicator is at approximately a middle of the line buffer; and loading pixel data for a second half of the next video line into the line buffer based on determining when the line buffer is about empty of the current video line of pixel data; and sending the stored video data from the line buffer to be displayed.

Claim 8, the prior art does not teach detecting the position in the line buffer where the video overlay data is located; loading data for the next video line into the line buffer when the video overlay data for the current video line is located at a predetermined position approximately at a middle of the line buffer, wherein loading data for the next video line comprises: loading a first position of data for the next video line into the line buffer when the video data from the predetermined position has been read; and loading a second portion of data for the next video line into the line buffer when the video data from the end of the line buffer has been read.

Claim 18, the prior art does not teach a display to receive the processed data from the overlay processing engine, wherein the line buffer is configured to read data for a next video data line when the frame buffer provides a predetermined amount of data to the display for a current video data frame, wherein a requirement for an amount of horizontal blanking (Hblank) time for the display is reduced by having a

firs half of data f or the next video data line in the line buffer before a beginning of a horizontal blanking interval is reached.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimbinh T. Nguyen whose telephone number is (571) 272-7644. The examiner can normally be reached on Monday to Thursday from 7:00 AM to 4:30 PM. The examiner can also be reached on alternate Friday from 7:00 AM to 3:30 PM.

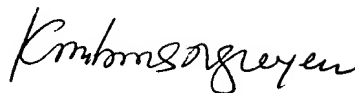
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ulka Chauhan can be reached at (571) 272-7782. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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October 11, 2005

A handwritten signature in cursive script, appearing to read "Kimbinh T. Nguyen".

KIMBINH T. NGUYEN
PRIMARY EXAMINER